WHAT IS CLAIMED IS:

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- 1. A phosphor composed of a single inorganic material, wherein when an excitation light composed of visible light is irradiated thereon, the phosphor emits a fluorescence of complimentary color with respect to a hue of the excitation light, and a portion of the excitation light transmits through the phosphor.
- 10 2. The phosphor according to claim 1 having a panel shape.
 - 3. The phosphor according to claim 2 of which a wall thickness is between 0.1mm to 2mm.
- 4. The phosphor according to any of claims 1 to 3, wherein the excitation light composed of visible light is a light of which center wavelength is between 430 to 490nm, and the fluorescence is a light of which center wavelength is between 530 to 590nm.
- 5. The phosphor according to any of claims 1 to 4 composed of a crystallized glass including Ce³⁺ and formed by precipitating a garnet crystal.
- 6. The phosphor according to claim 5, wherein the garnet crystal is YAG crystal or YAG crystalline solid solution.

- 7. The phosphor according to claim 5 including 0.01 to 5 mol% of Ce_2O_3 .
- 8. The phosphor according to any of claims 1 to 3 composed of a crystallized glass including 10 to 60mol% of $SiO_2 + B_2O_3$, 15 to 50mol% of $Al_2O_3 + GeO_2 + Ga_2O_3$, 5 to 30mol% of $Y_2O_3 + Gd_2O_3$, 0 to 25mol% of Li_2O , 0 to 15mol% of $TiO_2 + ZrO_2$, and 0.01 to 5mol% of Ce_2O_3 .
- 9. The phosphor according to claim 8 including essentially no TiO_2 and ZrO_2 .
- 10. The phosphor according to any of claims 1 to 3 composed of a crystallized glass including 10 to 50mol% of SiO_2 , 15 to 45mol% of Al_2O_3 , 5 to 30mol% of Y_2O_3 , 0 to 15mol% of GeO_2 , 0 to 20mol% of Gd_2O_3 , 0 to 15mol% of Li_2O , 0 to 30mol% of $CaO + MgO + Sc_2O_3$, and 0.01 to 5mol% of Ce_2O_3 .
- 11. A light-emitting diode utilizing the phosphor
 20 according to any of claims 1 to 3.
 - 12. A light-emitting diode comprising:
 - a stem including a cathode lead terminal and an anode lead terminal,
- 25 a light-emitting diode chip connected to the anode lead

terminal,

a metal wire connecting the cathode lead terminal and the light-emitting diode chip,

a housing vessel that is fixed such that the stem and
the light-emitting diode chip are air-tightly sealed, and of which
a window portion is formed above the light-emitting diode chip,
and

the phosphor according to any of claims 1 to 3 attached to the window portion of the housing vessel.

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- 13. A crystallized glass including Ce^{3+} and formed by precipitating a garnet crystal.
- 14. The crystallized glass according to claim 13, whereinthe garnet crystal is YAG crystal or YAG crystalline solid solution.
 - 15. The crystallized glass according to claim 13 including 0.01 to 5 mol% of Ce_2O_3 .
- 16. The crystallized glass according to any of claims 13 to 15 including 10 to 60mol% of SiO_2 + B_2O_3 , 15 to 50mol% of Al_2O_3 + GeO_2 + Ga_2O_3 , 5 to 30mol% of Y_2O_3 + Gd_2O_3 , 0 to 25mol% of Li_2O_3 , 0 to 15mol% of TiO_2 + ZrO_2 , and 0.01 to 5mol% of Ce_2O_3 .
- 25 17. The crystallized glass according to claim 16

including essentially no TiO_2 and ZrO_2 .

18. The crystallized glass according to any of claims 13 to 15 including 10 to 50mol% of SiO_2 , 15 to 45mol% of Al_2O_3 , 5 to 30mol% of Y_2O_3 , 0 to 15mol% of GeO_2 , 0 to 20mol% of Gd_2O_3 , 0 to 15mol% of Li_2O , 0 to 30mol% of $CaO + MgO + Sc_2O_3$, and 0.01 to 5mol% of Ce_2O_3 .